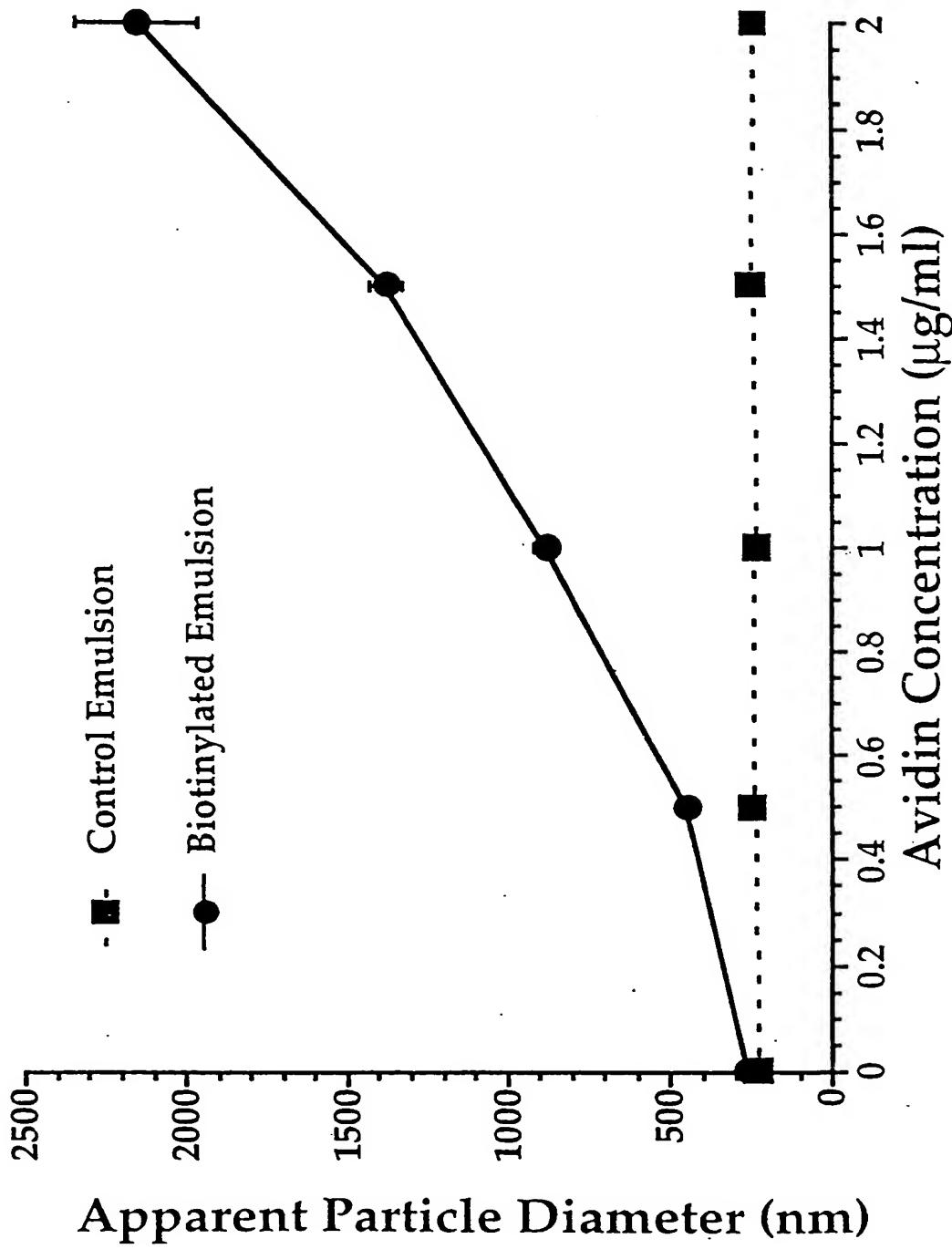


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FIG. 1 Aggregate Particle Size Response of Control and Biotinylated Perfluorocarbon Emulsions to Titrated Levels of Avidin



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FIG. 2 ULTRASONIC IMAGES OF CONTROL AND BIOTINYLATED
PERFLUOROCARBON EMULSION BEFORE AND AFTER
THE ADDITION OF AVIDIN

CONTROL EMULSION BIOTINYLATED EMULSION

a

b

Before

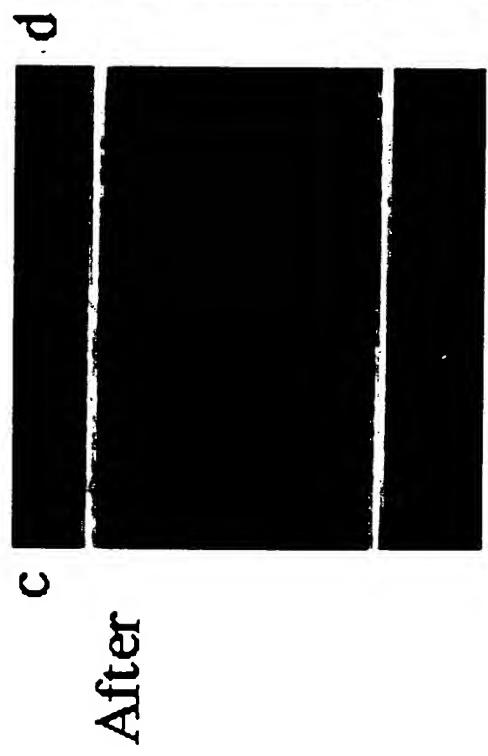
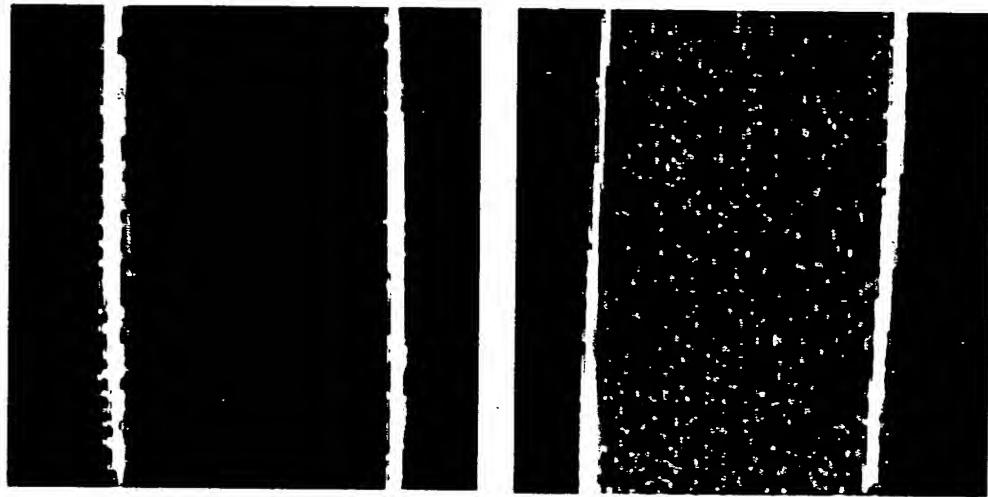


Figure 3. Graphic Illustration of Dialysis Tubing Images and Region of Interest Placement for Gray Scale Analysis

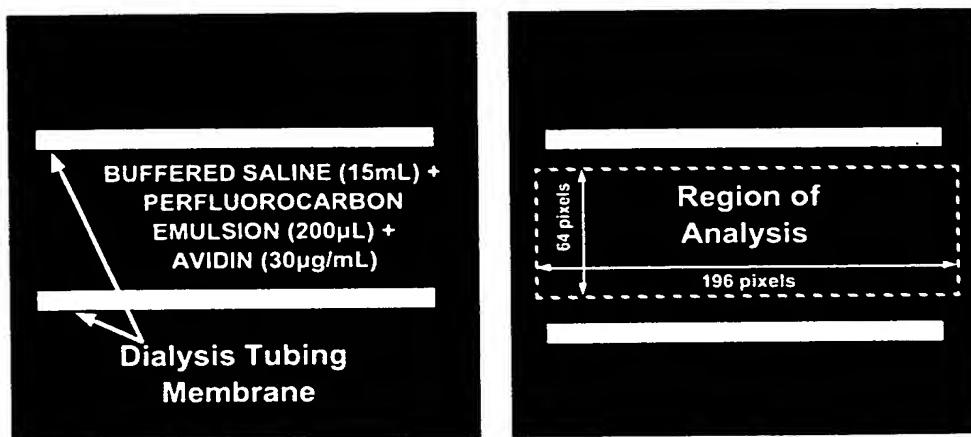


FIG.4 Changes in Average Pixel Gray Scale Associated with the Addition of Avidin to Control or Biotinylated Perfluorocarbon Emulsion

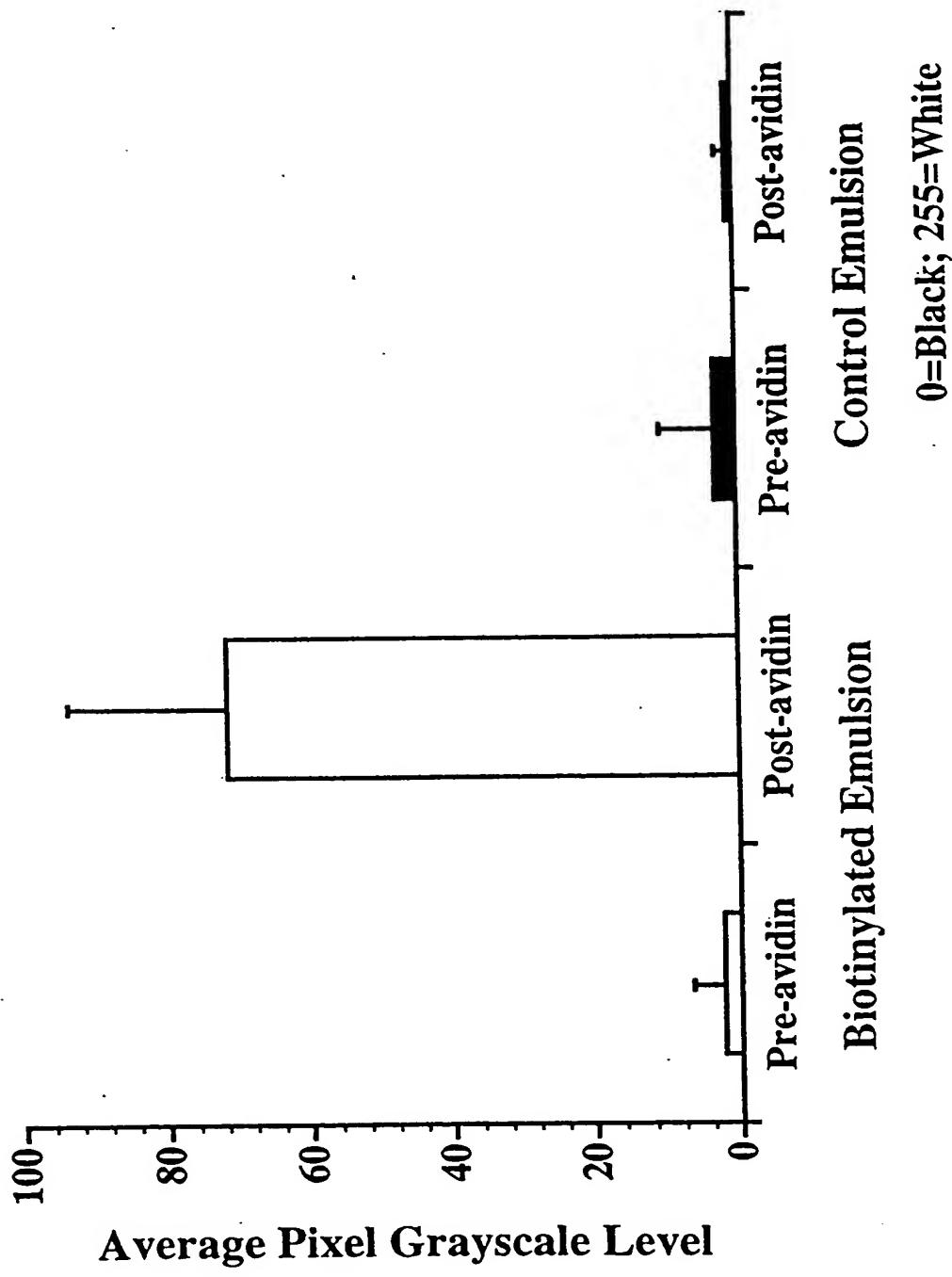
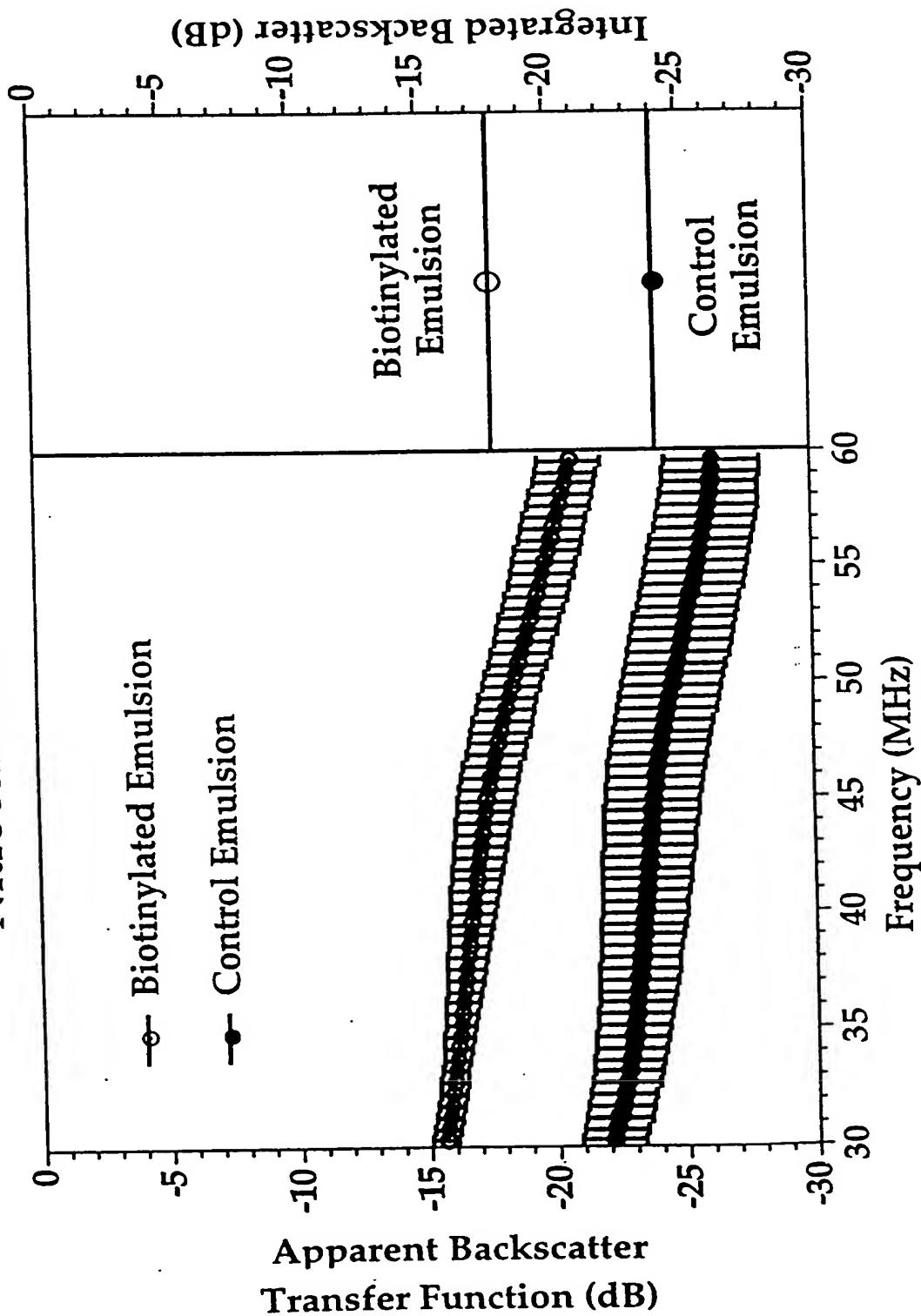
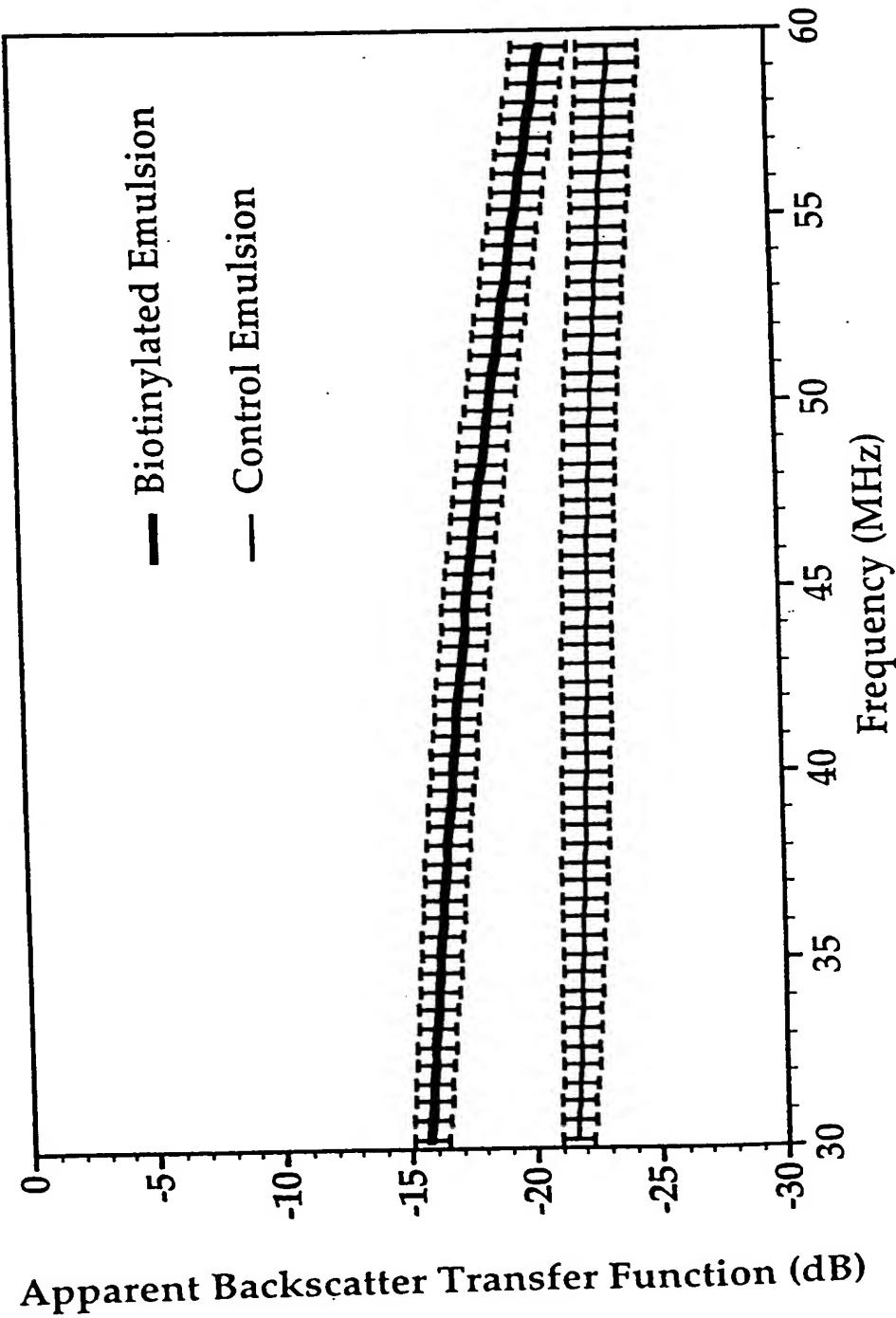


FIG. 5
The Effect of Control and Biotinylated
Perfluorocarbon Emulsion on Apparent Backscatter Transfer
Function and Integrated Backscatter of Avidinized
Nitrocellulose Membranes



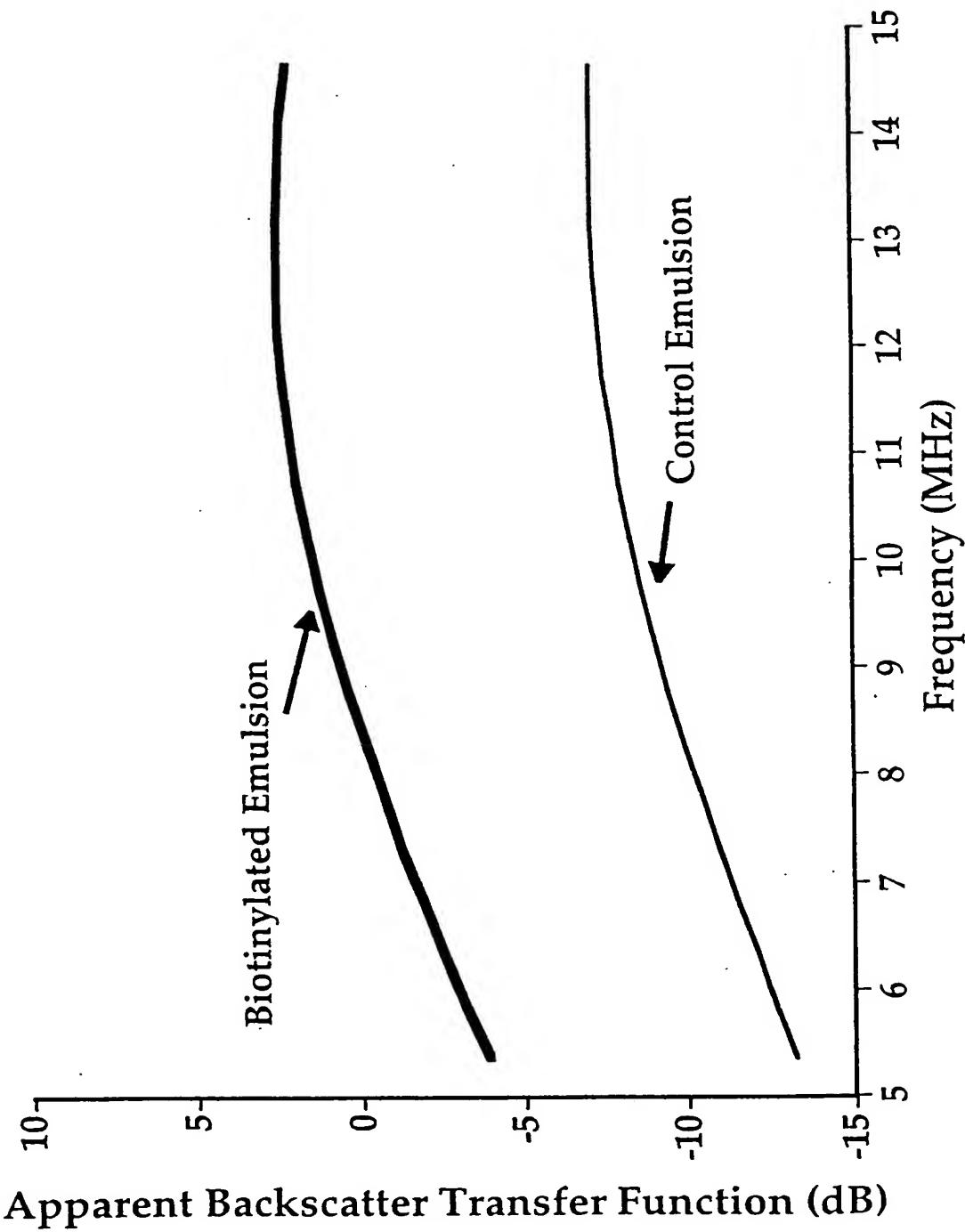
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FIG. 6 Apparent Backscatter Transfer Function of Biotinylated and Control Perfluorocarbon Emulsions Targeted to D-dimer Covalently Conjugated to Nitrocellulose Membranes



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FIG. 7 Apparent Backscatter Transfer Function (dB) of Biotinylated and Control Perfluorocarbon Emulsions at Low Ultrasonic Frequencies



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FIG. 8 Apparent Backscatter Transfer Function of Biotinylated and Control Perfluorocarbon Large Particle Size Emulsions Targeted to Avidinized Nitrocellulose Membranes

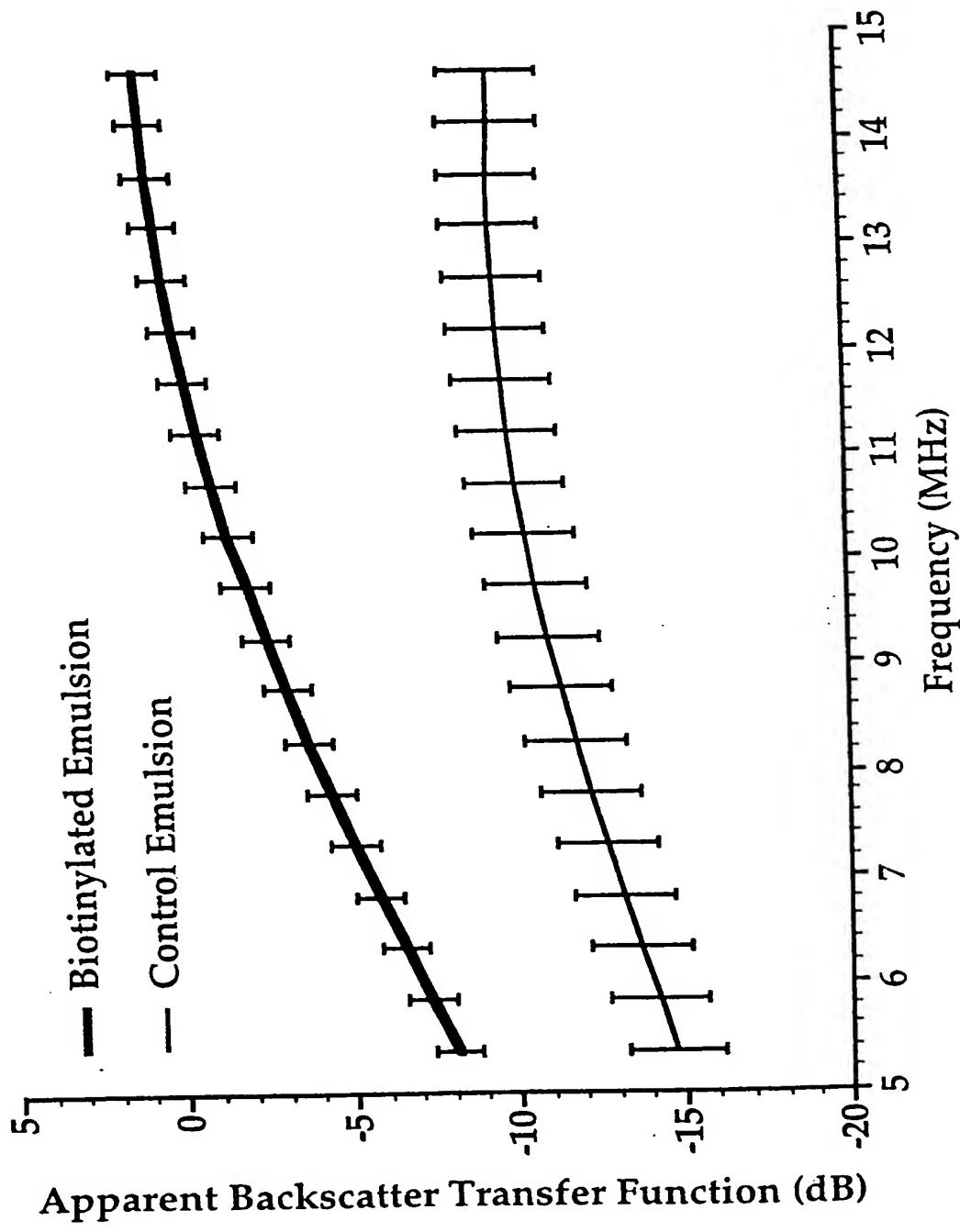


Figure 9. Ultrasonic Images (7.5 MHz) of Plasma Thrombi Pre-targeted with Antifibrin Monodonal Antibody and Exposed to Control or Biotinylated Perfluorocarbon Emulsion *in Vitro*



Control Emulsion Biotinylated Emulsion

FIG. 10 Average Pixel Grayscale of Plasma Thrombi Pre-targeted with Antifibrin Monoclonal Antibody and Exposed to Control or Biotinylated Perfluorocarbon Emulsion

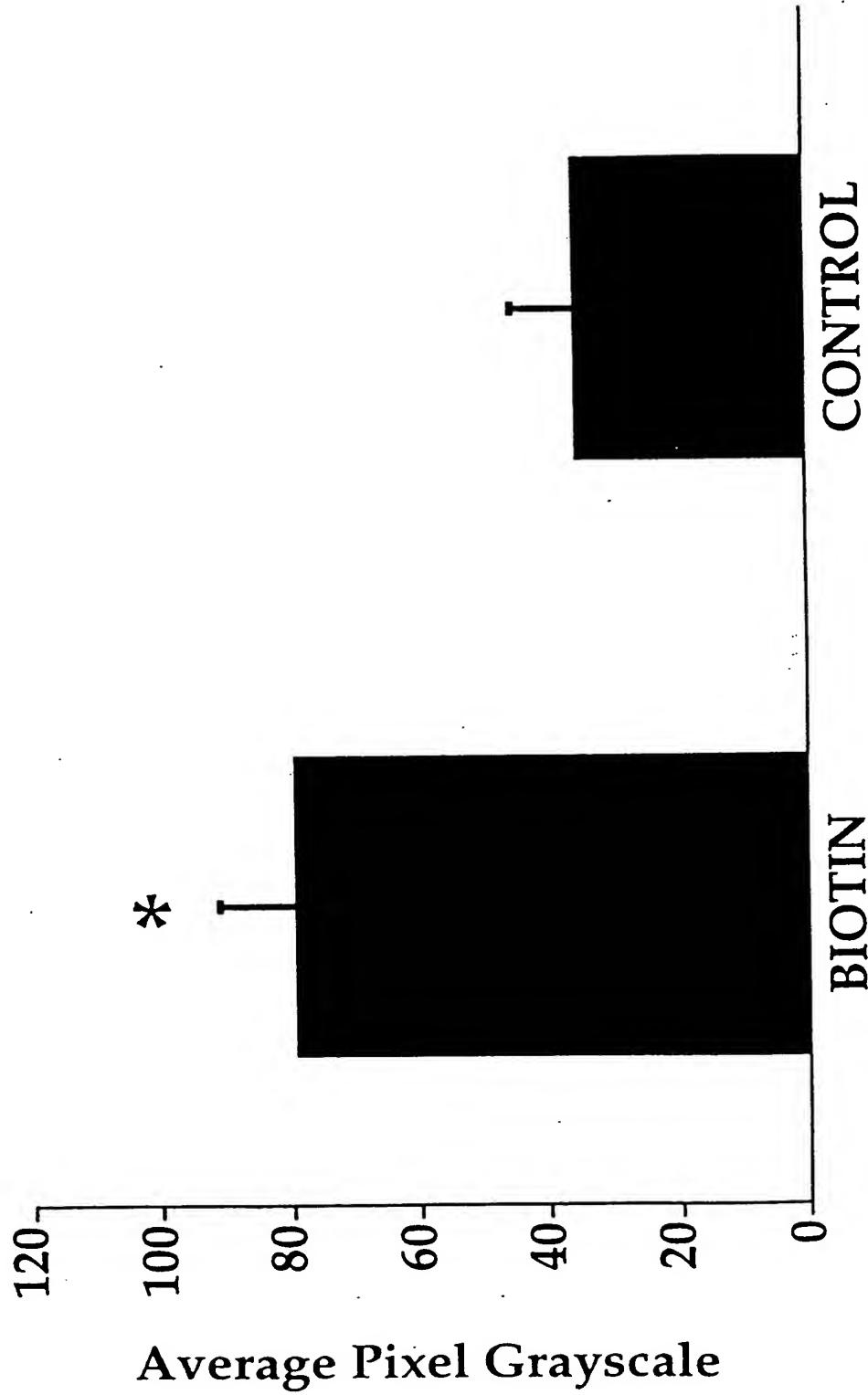
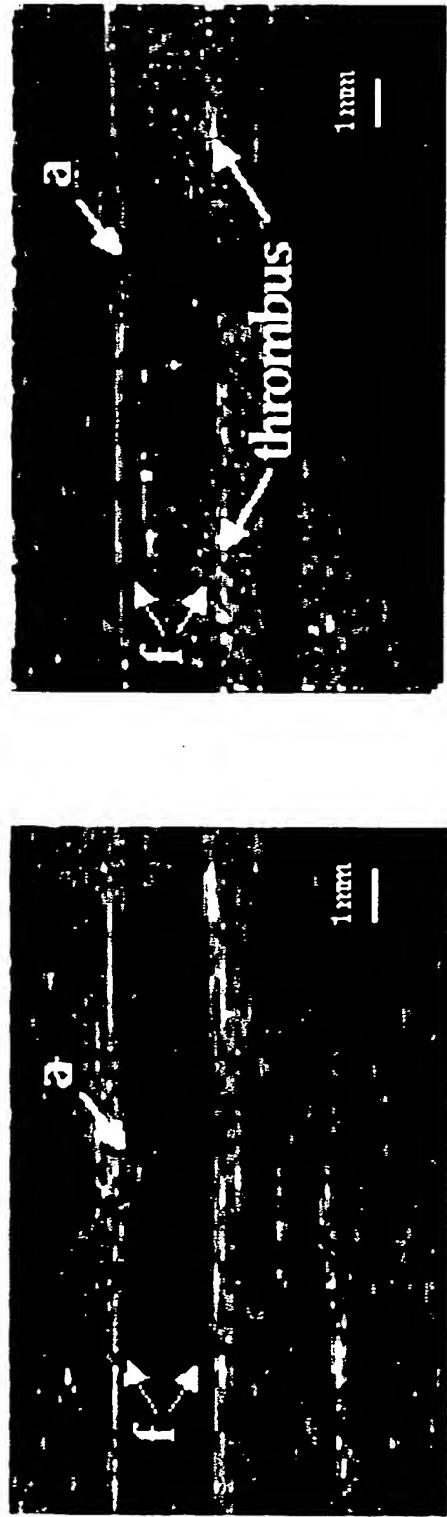


Figure 11. Femoral Artery Thrombus Acoustically Enhanced with Biotinylated Perfluorocarbon Emulsion *In Vivo*



Thrombus Before Targeted Biotinylated Contrast

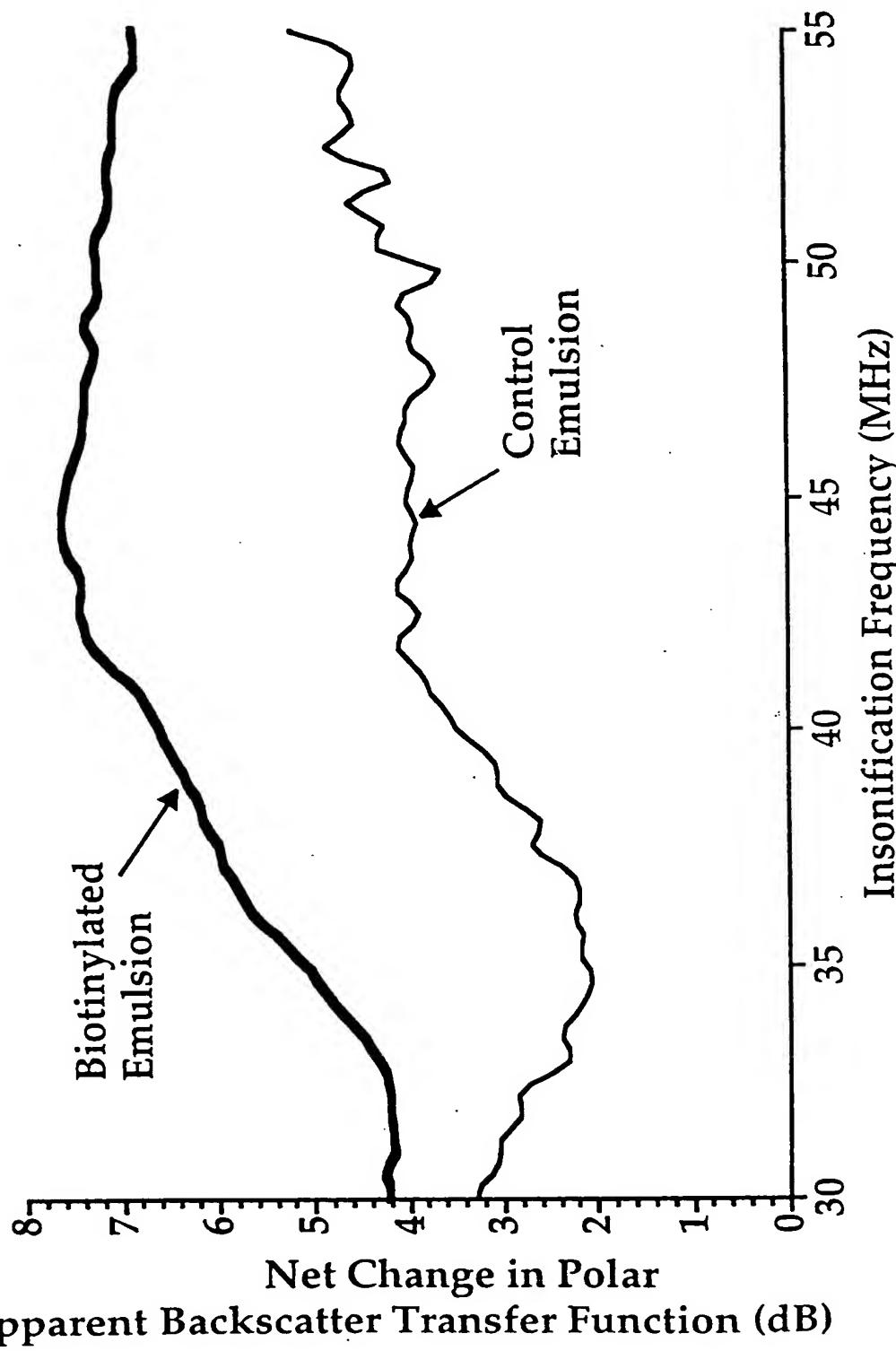
Thrombus After Targeted Biotinylated Contrast

Imaged with HP Sonos 2500
7.5 MHz Focused, Linear Phased Array Transducer

Key: a=electrical anode; f=femoral artery walls

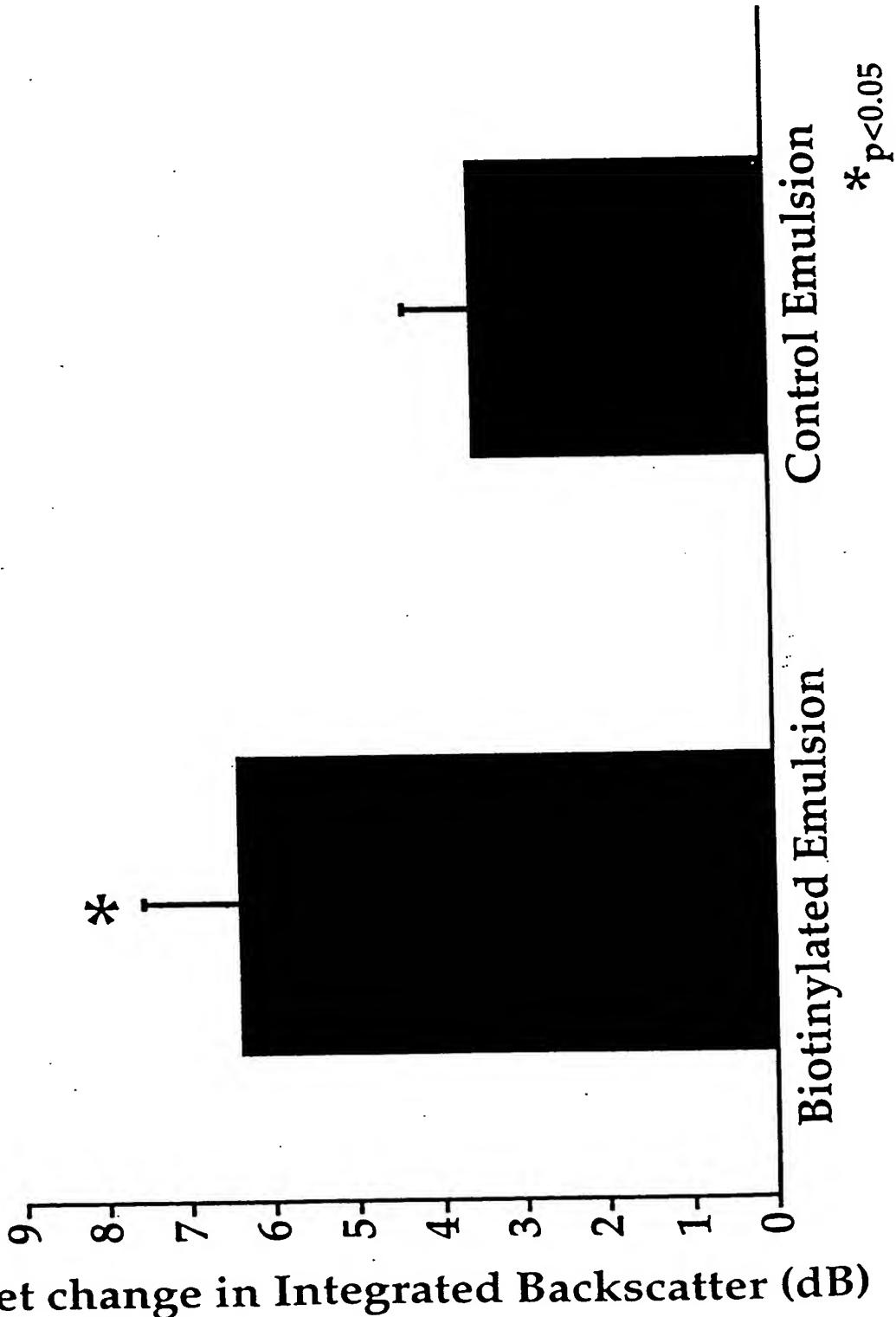
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FIG. 12 Net Change in Apparent Backscatter Transfer Function of Biotinylated and Control Perfluorocarbon Emulsions Targeted to Prostate Specific Antigen in Prostatic Carcinoma Relative to Normal Regions



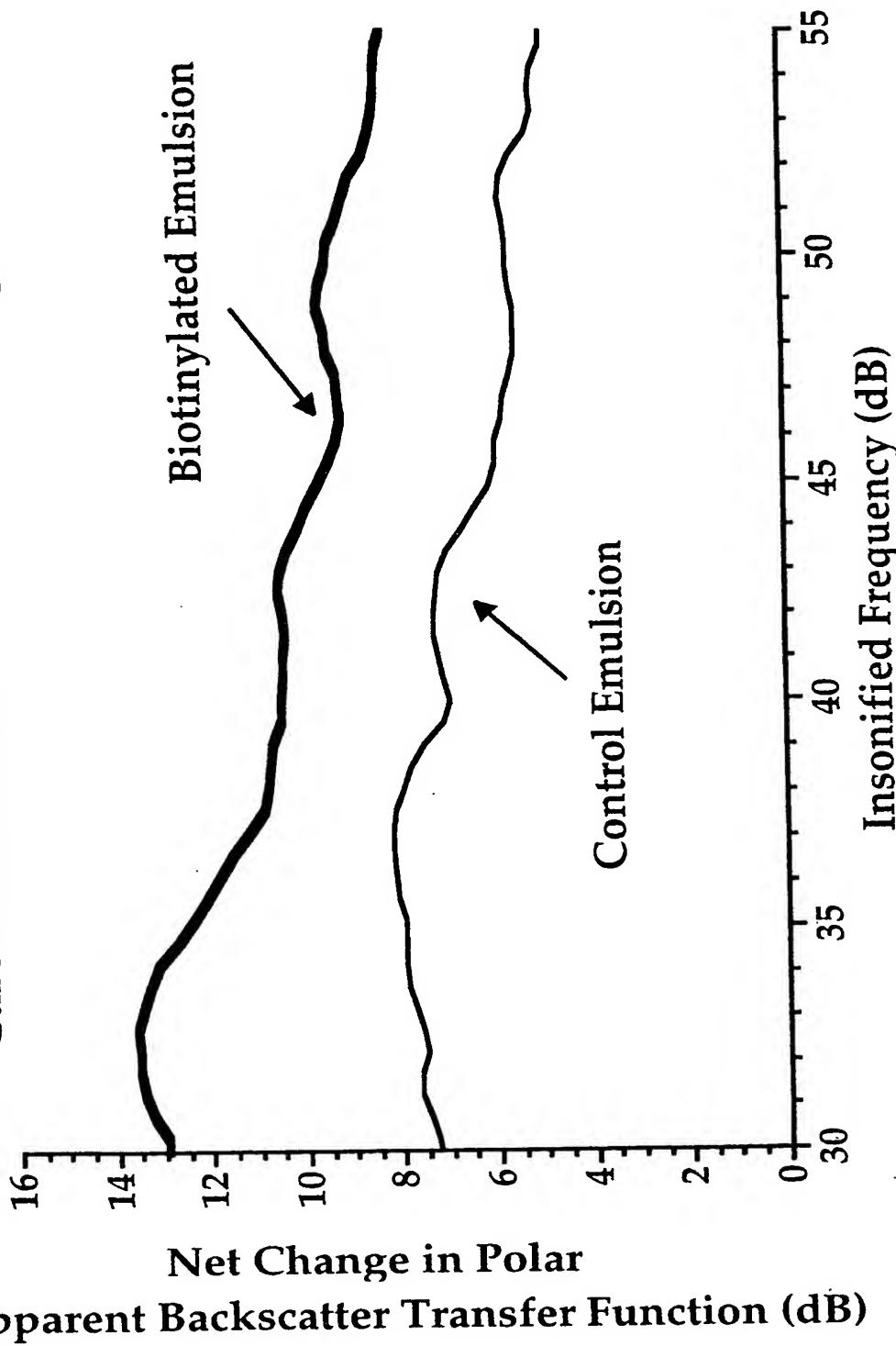
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FIG. 13 Net Change in Integrated Backscatter between Normal Prostatic Stroma and Cancer Regions for Control versus Biotinylated Perfluorocarbon Emulsions



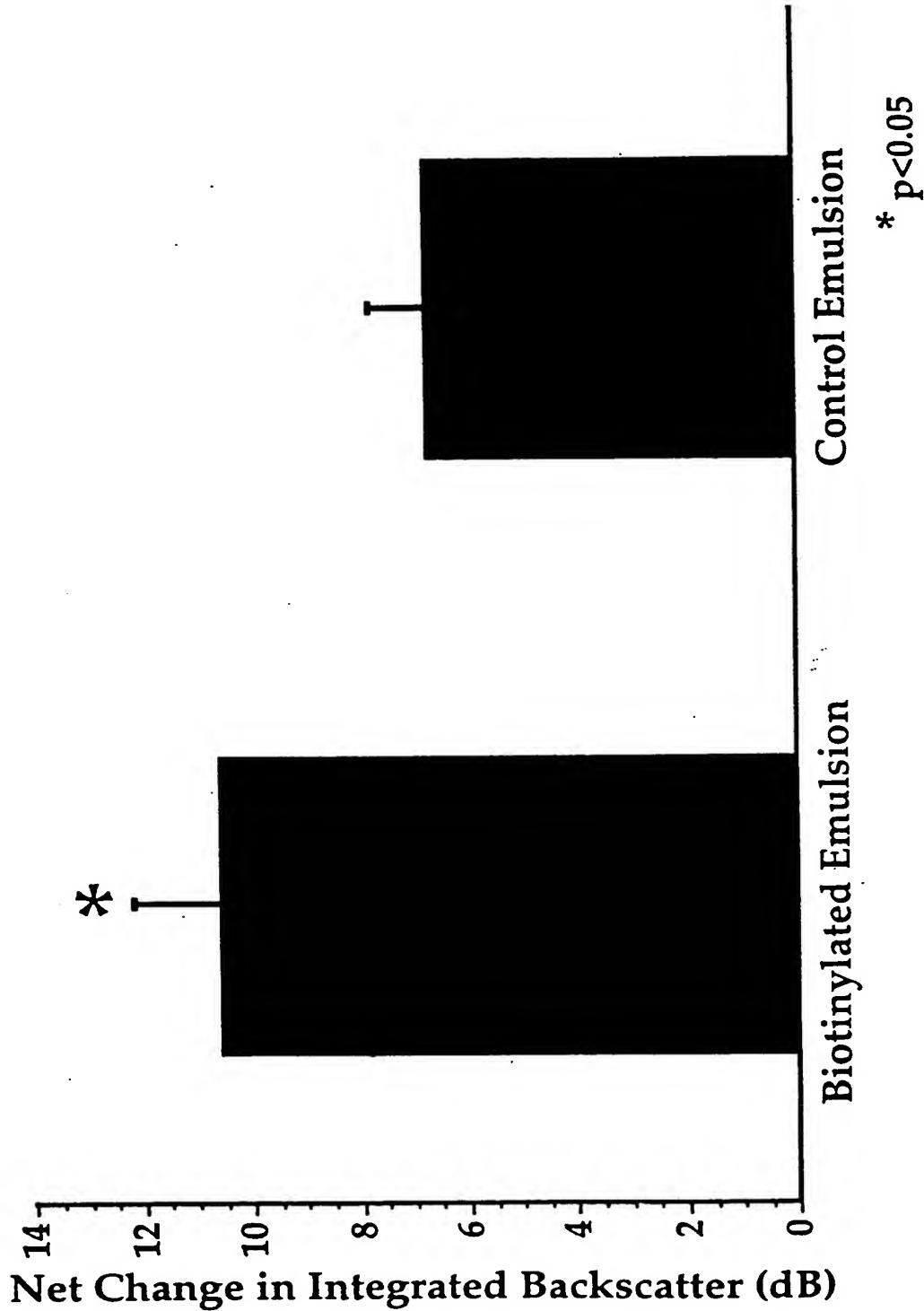
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FIG. 14 Net Change in Apparent Backscatter Transfer Function of Biotinylated and Control Perfluorocarbon Emulsions Targeted to OC-125 Antigen in Ovarian Carcinoma Relative to Normal Regions



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FIG. 15 Net Change in Integrated Backscatter Between Normal Ovarian Tissue and Carcinoma Regions for Control versus Biotinylated Perfluorocarbon Emulsions



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Figure 16. Comparison of Ultrasonic and Optical Images of Tonsil
Using Perfluorocarbon Contrast and Horseradish Peroxidase
Targeted to Epithelium with Anticytokeratin Antibodies



Immunostained Tonsil



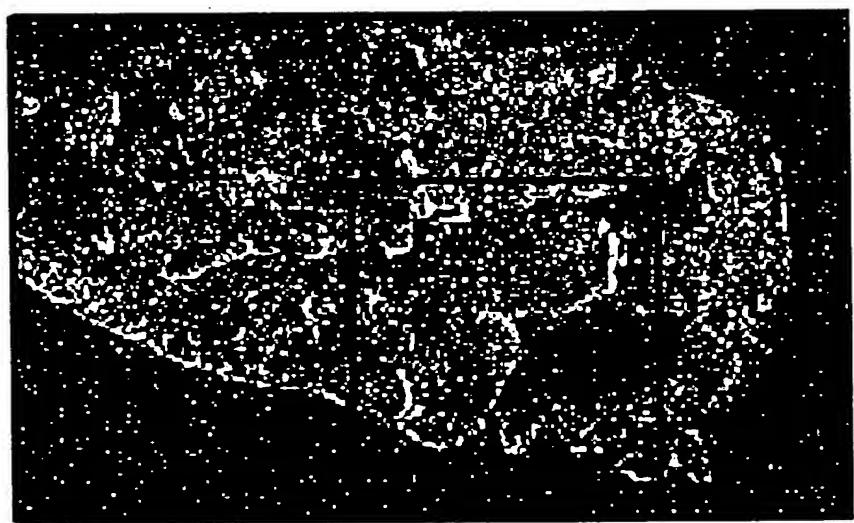
Peak Detected Image
100 μ m step size

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Figure 17. Peak Detected Ultrasonic Radiofrequency Images of Tonsil Epithelium Acoustically Enhanced with Anti cyto keratin Antibody Targeted Perfluorocarbon Emulsion



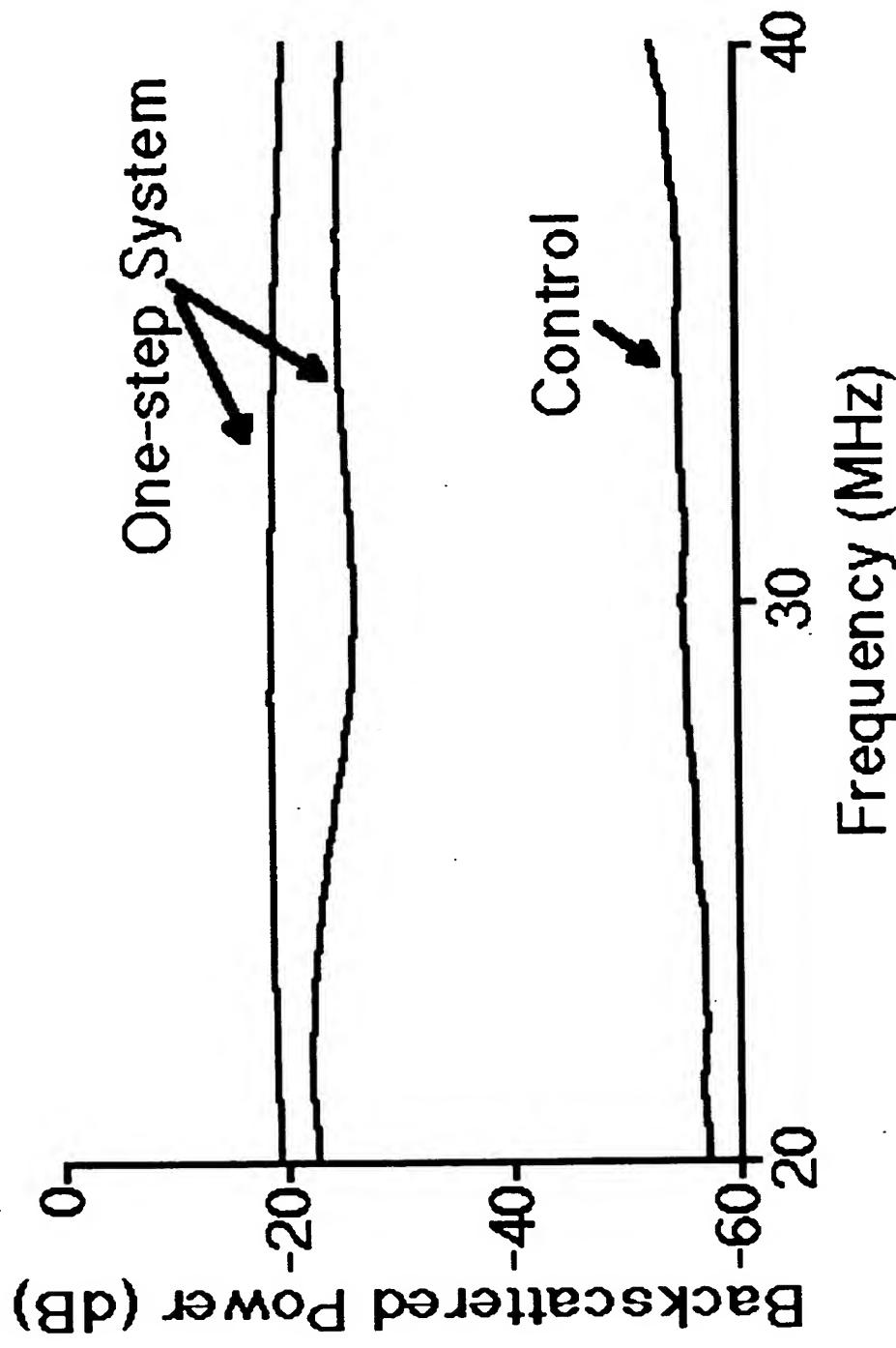
Zoom: 50μ step size



Peak Detected Image
 100μ Step Size

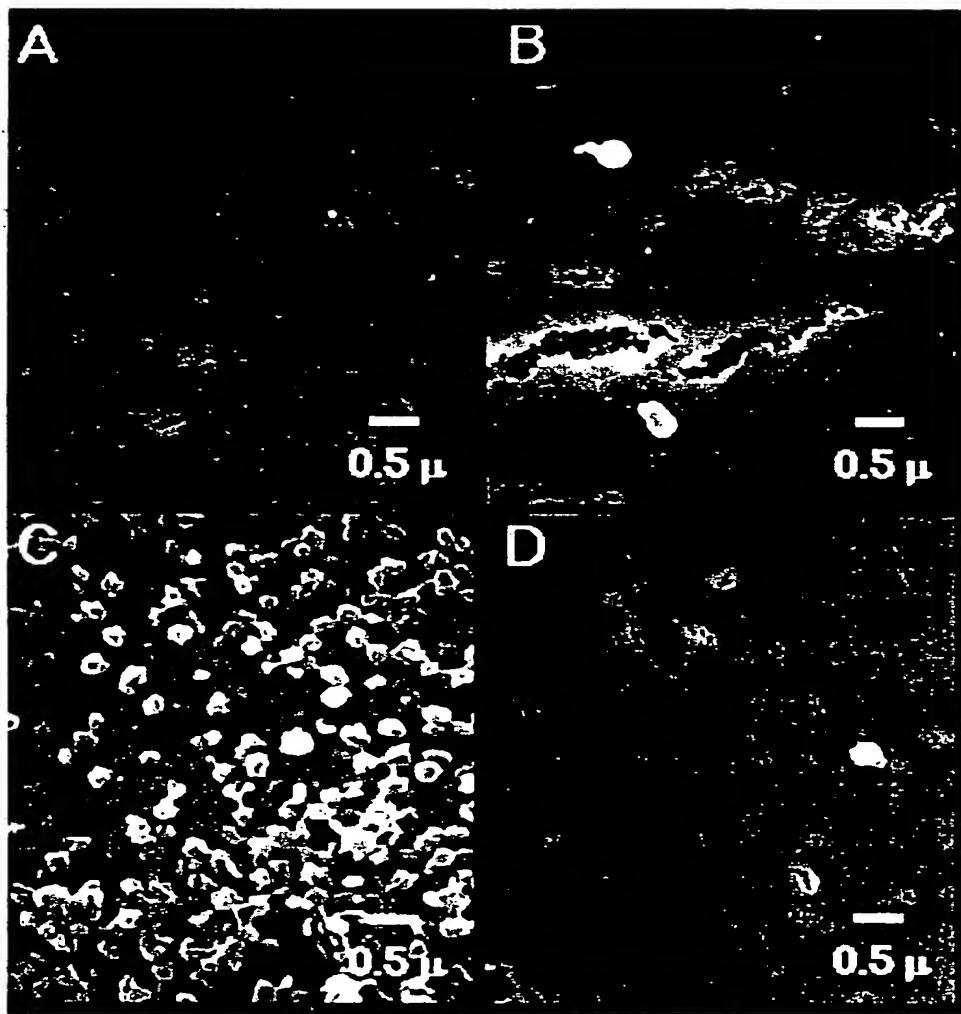
FIG. 18

Backscattered Power from Plasma Clots after
One-step Fibrin Targeted Emulsion



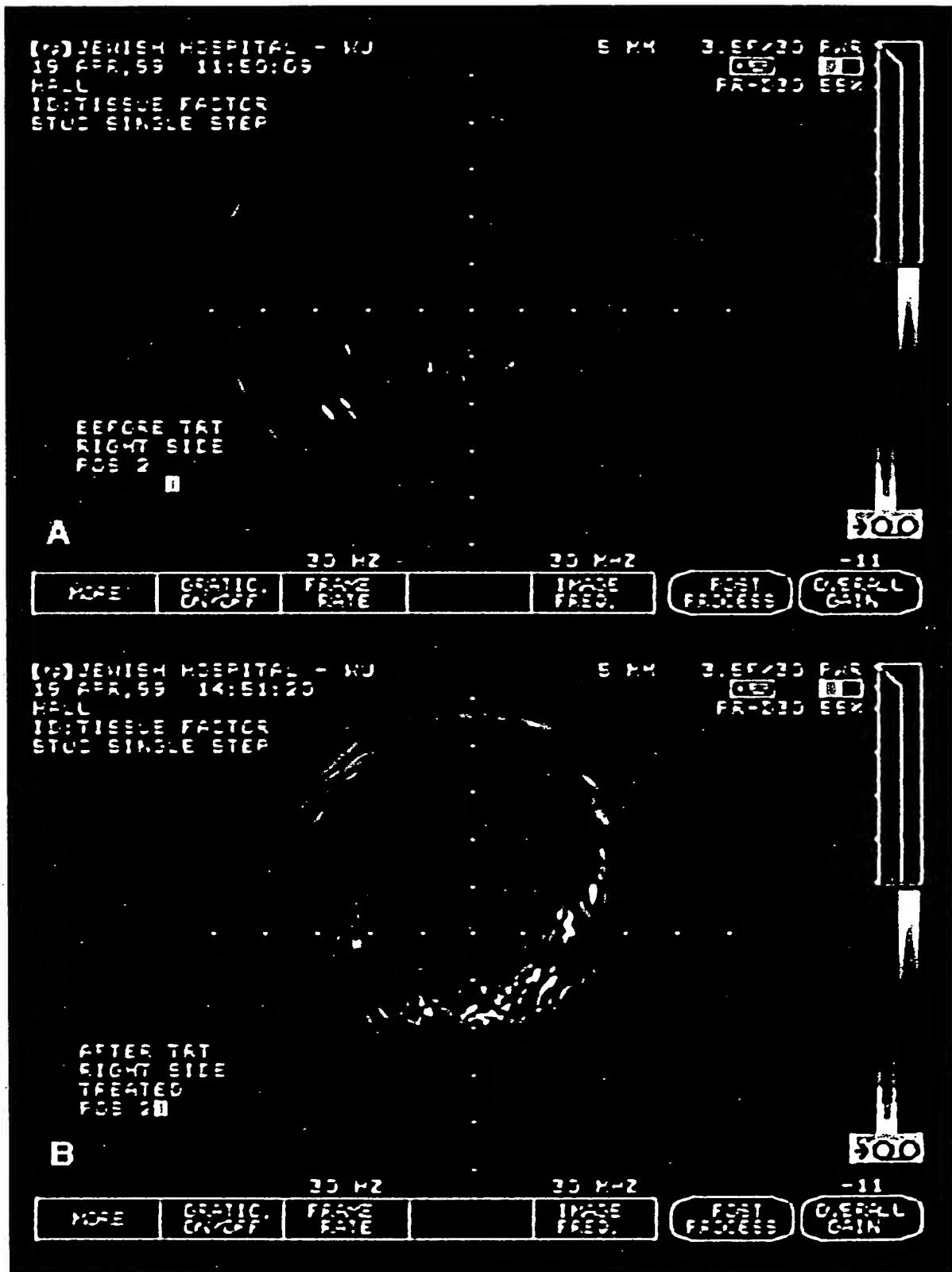
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FIG 19



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FIG. 20



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FIG. 21

